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INTERNATIONAL CONFERENCE ON
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GENERAL OBSERVATIONS ON A UNIVERSAL
SYSTEM OF TONNAGE MEASUREMENT

Submitted by the Philippines

The Government of the Philippines submits hereunder the observations on basic proposals A, B and C, proposal by Finland and amendments to proposal C by Denmark. The Philippines will support basic proposal C in principle.

GENERAL OBSERVATIONS

I. PROPOSAL "A"

Merits and Advantages

1. Only a modification of present system and is therefore familiar.
2. Convenient to apply because of universal use.
3. Easy to fit with majority of existing ships without too much deviation from existing tonnage of ships.
4. Will not cause a considerable upheaval in the shipping industry.
5. It embodies "The Treatment of Shelter Deck and Other Open Spaces".

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Disadvantages

1. It retains most of the undesirable features of the present system without any outstanding benefit.
2. The dependance on definitions is emphasized.
3. The location of a space may determine exemption or deduction.
4. The utilization of a space may be determining factor for exemption or deduction.
5. The difficulty of determining the use of a space is still prevalent.
6. It will influence the design of ship.
7. Deductions involve complicated individual interpretation.
8. Allows application of rules detrimental to good design and safety of vessel.

II. PROPOSAL "B"

Merits and Advantages

1. A newer method of computation for gross and net tonnages than "A".
2. Permits a simple estimation at early stage of design.
3. It does not restrict the benevolence of a shipowner to give more ample crew accommodation.
4. It is superior to Proposal "A" because it resorts to direct measurement of cargo and passenger spaces which are actually the earning capacities of a ship.
5. Less liable to cause an upheaval in the shipping industry.
6. It embodies "The Treatment of Shelterdeck and Other Open Spaces".

Disadvantages

1. It still retains inherent disadvantages of the existing systems of measurement.
2. It does not permit final determination at an early stage.
3. It would influence design because it does not measure the volume of superstructures except passenger spaces. A vessel with a large superstructure would have the same tonnage as a vessel with a small one if they have the same underdeck volume.
4. Cargo spaces in the upperdecks would involve non uniform interpretation by various agencies or governments.
5. It goes against the principle that gross tonnage should be a reasonable and consistent index of total vessel volume.

III. PROPOSAL "C"

Merits and Advantages

1. It gives an accurate indication of a ship's size and earning capacity irrespective of the type of ship.
2. The displacement scheme is better than the Tonnage Mark System by showing a lesser displacement if the draft is reduced. In the Tonnage Mark System, the mark is placed at a determined level so that a consequent reduction in draft will not be in proportion to the reduction in tonnage.
3. The total moulded volume will represent the actual volumetric size of the ship.
4. The load displacement will represent the real weight of ship and cargo. Ships measured under this system will be comparable.

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5. Conflicting ambiguities would be eliminated.
6. The system is independent of the type of ships, location of spaces, use of spaces and constructional features.
7. Outstanding simplicity.
8. Allows uniform interpretation and application to future ships.
9. Measurement and administration would be considerably simplified. It would therefore be less costly to administer and operate.
10. There is no net tonnage to reckon with. It follows the industrial axiom that whatever you do not put in won't give you any trouble.
11. Its principle of total moulded volume is in consonance with the basic requirements of both the Suez and Panama Canal Companies, namely, that spaces which are not bona fide open spaces should not be excluded from tonnage.

Disadvantages

1. It is new and involves the unknown.
2. It does not exempt crew accommodation, store rooms and water ballast spaces from heavy fees.
3. The use of displacement could result in frequent changes of load line and tonnage certificate because of different cargo characteristics for each voyage.
4. The displacement basis would compel ships designed for a limited draft to pay proportionately higher charges than a similar full scantling ship. Ships with strengthened members would pay a penalty for their greater proportion of structural body.
5. The definition of "closed space" still causes complications from which, in the first place, tonnage measurement should be extricated.

IV. PROPOSAL "C" - Amended by Denmark

Merits and Advantages

1. It is greatly simplified - only one parameter, displacement is used.
2. It has no outstanding ambiguity.
3. It does not affect the design of the vessel.
4. It does not allow cheating in order to obtain smaller tonnage.
5. It is easy to apply to existing ships.
6. It carries the unique merits of Proposal "C".
7. It eradicates the possibility of using double tonnages and the consequent confusion.
8. It will exclude attempts at distortion.
9. There is no radical departure in results as obtained by existing measurements. An adjustment in fees would therefore be only modest.

Disadvantages

1. It is only an amendment to basic Proposal "C" and therefore cannot involve the block consideration engendered by a basic proposal.
2. Its minimum calculated freeboard can lead again to the arrangement of openings in decks and shell in order to manipulate tonnage. Here we return back to the complication from which the Conference is endeavouring to extricate tonnage measurements.

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3. It would penalize certain ships, which for certain purposes the structural members are strengthened like heavy plating and framing. A cargo ship should not be penalized forever due to its own weight.
4. It will perpetuate the present trend to build light-weight ships with light-weight machinery in order to achieve a smaller tonnage. This has a detrimental influence on safety.
5. It does not exempt crew accommodation, store rooms and water ballast space from charged fees.
6. The use of displacement as a parameter could lead to frequent changes in load line and tonnage certificate as the type of cargo trade varies.

V. PROPOSAL BY FINLAND

Merits and Advantages

1. The most significant expression for the capacity of a cargo ship is the total deadweight.
2. It concentrates analysis on the majority type of world shipping - cargo ships, which comprises 90 per cent of world tonnage.
3. Deadweight is treated from the planning stage to the end of the service of a ship.
4. Deadweight is recognized and accepted everywhere.
5. The trend to minimize chargeable tonnage is counteracted by the desire to register maximum deadweight.
6. It is easy to check deadweight at any later period of ship service.

7. For passenger ships, displacement at different stages is checked frequently and therefore accurately stated or known.
8. The deadweight system can enter into force within a very reasonably short time.
9. It is greatly simplified.
10. All ships new and existing are treated alike.
11. Deadweight for cargo ships is easily found in several Registers. Displacement of passenger ships and special purpose ships can easily be found in files of their corresponding government. Those new certificates can be issued readily to existing ships.
12. It makes possible a simple task in computing new tariffs as figures are already known.

Disadvantages

1. The treatment favours only cargo ships. Passenger ships are barely studied.
2. Deadweight principle cannot be applied to passenger ships.
3. Deadweight principle cannot be applied to special purpose ships.
4. For passenger ships, gross tonnage is displacement. Displacement which is tried to be dispensed with is considered again.
5. Deadweight is not the true index of a ship's size.
6. It will influence ship design.

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CONCLUSION

I. Proposal "A"

Proposal "A" was developed mainly along the line of achieving results as close as possible to present tonnage resulting from computation by the existing system.

In doing so, it adheres to the ways of the existing system, retaining its deficiencies and disadvantages from which in the first place the tonnage measurement should be extricated.

Proposal "A" passed in theory but failed in practice. IMCO computer studies produced tonnages for Proposal "A", "B" and "C" varying considerably from existing tonnage. One of the reasons for the contradictory results is that some ships have extremely low or high tonnages. Another reason is that there are several existing systems of tonnage measurement.

This contention demolished Proposal "A" as a good choice of tonnage measurement method.

II. Proposal "B"

Proposal "B" was constructed along the theory of directly measuring the cargo and passenger spaces as net tonnage. This is far superior to the deduction method of Proposal "A".

In the calculation for gross tonnage, however, Proposal "B" failed to arrive at a tonnage indicative of a ship's size. Proposal "B" would measure only the underdeck volume so that two ships with equal underdeck volume but different sizes of superstructure would have the same gross tonnage.

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According to the basic features required by IMCO, any proposal should strive for:

Net Tonnage - a numeral parameter of a vessel's earning capacity.

Gross Tonnage - a numerical parameter of a vessel's size.

Proposal "B" has passed the requirements of "net tonnages" very well but failed to pass the requirements of "gross tonnages".

Proposal "B" would influence design and involve again the possibility of distortion in the calculation of cargo spaces in the upper part of the vessel.

These facts demolish Proposal "B" as a choice of tonnage measurement.

III. Proposal "C"

Proposal "C" was formulated with superior technique so that the net tonnage is construed as the true index of a vessel's earning capacity and gross tonnage as the indication of a vessel's size.

Proposal "C" proceeds with the technical truth that:

Total Moulded Volume - real volumetric size of the ship - Gross Tonnage.

Load Displacement - real weight of ship and cargo - index of earning capacity (which is the parameter of net tonnage required by IMCO).

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Proposal "C" is simple, capable of very uniform application and independent of type of ship, location of spaces, size of spaces and constructional features.

Information about moulded volume and displacement is readily available. Administration and control is considerably simplified and therefore requires less expense to maintain and apply.

Furthermore, the total moulded volume as gross tonnage is in consonance with the concept of the Panama Canal and Suez Canal authorities that spaces which are not bona fide open spaces should not be excluded from chargeable tonnage.

Proposal "C" has gained the support of a considerable majority of participating nations. The validity of the philosophy that the opinion of the majority of mankind is usually a good opinion is difficult to demolish. This is the philosophy that engendered the United Nations, in which IMCO exists as an instrument for worldwide development.

IV. Philippine Position

THE REPUBLIC OF THE PHILIPPINES WILL THEREFORE SUPPORT BASIC PROPOSAL "C" IN PRINCIPLE.